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JUN 15 1920
BUREAU OF
PLANT INDUSTRY

WEEKLY STATION REPORTS

OF THE OFFICE OF

DRY LAND AGRICULTURE INVESTIGATIONS

BUREAU OF PLANT INDUSTRY

U. S. DEPARTMENT OF AGRICULTURE.

JUN 5 192

REPORT FOR WEEK ENDING JUNE 5, 1920.

Akron:

A rain of .92 inches on the night of the 31 interferred with active field work a large part of the week. Time was occupied by hauling and burning thistles. Today the kafir, milo, and the cane plats were seeded under almost ideal conditions.

Corn has emerged to a good stand in almost every instance, the only replanting that may be necessary being on F (listed) of the continuous cropping series. Rye on the green manure plats is in head and will be turned under early next week. Summer fallow plats were plowed today.

The fruit trees and the forest rrees are now in full leaf.

Maximum temperature 82, on the 30; minimum 42, on the 1; precipitation 1.13 inches.

Colby:

Weather at Colby continues cool and cloudy with only occasional bright sunny days. Crops in general are later than usual and feed crops are likely to be caught by frosts in the fall, unless the summer is very favorable. Some bareley which was planted very early is just starting to head, but the greater part of the crop will not head for several days yet. Winter wheat is a little late. Sorghums planted on the surface are all up with a good stand, but germination has not been very good on the listed plats because of the cold soil

Mr. E. F. Chilcott visited the Station the first of the week, while making a round of the Kansas Stations.

Dickinson:

The first good rain of the season, totalling .81 inches fell on the night of June 5. Previous showers during the past two weeks had been light and of only slight benefit to crops. Much damage has been done to crops by the high winds during the last half of May. About 15 per cent of the acreage in the county was destroyed. Some of the land is being reseeded to grains but much of it will go into millet and other forage crops. The first frost since April occurred on the night of June 3, with some damage to corn and garden.

All small grains are now growing rapidly, but corn has come slowly, due to the cold weather. Cut worms are doing some damage to corn and will do more to the late seeded fields, as the worms are reaching a size to be most active. On the Station no damage has been done to April 27 seeding, but in a field plated May 14 they have destroyed a small percentage of the plants. Frequent cultivation is being practiced to reduce further loss. It is reported that some small grain fields in the locality are being damaged.

Plats have been trimmed, alleys and roadways cultivated, and the latter seeded to slender wheat grass to prevent washing. Fallow plats on the rotations were plowed June 5. Considerable time has been spent removing dead trees from the plantings. About half of the cottonwoods remaining in the 1909 plantings are dead, and also a good many evergreens. All trees have been cultivated.

Maximum temperature 77, minimum 31; precipitation .96 inches.

Edgeley:

The weather continues cool and cloudy. The soil is very moist and crops are making rapid growth, with the exception of corn. Some of the grain plats are quite weedy.

Edgeley, continued:

Grasshoppers are beginning to hatch out and appear quite numerous in places.

Maximum temperature 81, minimum 38; precipitation 1.33 inches.

Garden City:

With the exception of one day when the fields were too wet, the past week has been very favorable for field work. Most of the time it has been cool and cloudy, which is not a very good combination for plant growth. We finished planting our sorghums and cowpeas this week. From all indications the grasshoppers are going to be just as bad this year as they were last. They are showing up in large numbers along the fence rows, where they are beginning to hatch out.

We put out poison bran mash around the edges of the fields this week, we hope we have gotten rid of a good bunch of the pests before they start to migrate into the fields.

The best rain of the season fell on the night of the 3, the rain gauge showing 1.28 inches the next morning.

Maximum temperature 95, minimum 30; precipitation 1.28 inches.

Hettinger:

The crops in the vicinity of Hettinger are looking very good; with the frequent rains the wheat and oats have an excellent stand. Corn is somewhat backward due to the cold weather. Alfalfa is making a good growth and will be ready to cut by June 15. The brome grass is making a good growth, also. The New Forage Crop trials were seeded on May 28. The trials consist of alfalfa in 6" drills, brome in 6" drills, slender wheat grass in 6" drills, golden millet in 6" drills, kursk millet in 6" drills, Siberian millet in 6" drills, Sudan grass in 6" drills, Dakota amber sorghum in 6" drills, Sudan grass 3' rows, Dakota amber sorghum 3' rows, sweet clover with oats as nurse crop, sweet clover alone, and sunflowers in 3' rows. The sizes of the plats is one-fifth of an acre.

We completed trimming the D.L.A. and Flax Rotation plats on June 2; also the summer fallow on June 3.

We expect to hold a picnic on the Station on June 22.

Maximum temperature 63.7, minimum 40.2; precipitation .75 inches; total precipitation for May 2.14 inches.

Huntley:

Temperatures have been somewhat lower this week than last. Frost was noted several mornings, but a freezing temperature was recorded at the instrument shelter only once.

Preparation of corn land was completed early in the week, and the crop was planted Wednesday and Thursday. Land for miscellaneous crops and experiments was put in shape and planting will soon be completed on these plats.

All crops have made a heavy growth, especially fall grains, and hogs on the acre plat of rye in rotation 652 are making little headway in keeping the crop pastured down. They appear to be making very good gains in spite of the coarseness of the forage.

Maximum temperature 73, minimum 32; precipitation .19 inches.

Judith Basin:

The past week has been very cool and cloudy, with precipitation occurring every day. Not over .10 inches of rain, however, was recorded during any day except the 29, when .71 inches was recorded.

Judith Basin, continued:

The total precipitation for the month of May was 2.91 inches, which is .13 inches more than the 22-year average for the same month. The total precipitation received since January 1, is 10.18 inches. This is .28 inches more than was received during the entire year of 1919.

Spring wheat, barley, and oats are up and are growing rapidly. Alfalfa and winter rye are about nine inches high. Winter wheat, however, is progressing rather slowly. Considerable wire worm damage to winter wheat in the Judith Basin is being reported, but as yet no infestation has been discovered on the experiment Station.

Field work has been hindered somewhat by the frequent showers, but work in the field was possible during the greater part of the week. Corn was planted on the rotations and except for eight acres of alfalfa, five acres of flax, and a few plats of sunflowers and corn, all seeding on the Station has been completed.

Maximum temperature for the week 66, minimum 31, precipitation .94 inches.

Lawton:

Beating rains early in May which caused a great amount of washing, made it necessary to replant the greater portion of milo and kafir plats. Heavy rains the latter part of the month again resulted in washing in many plats, so this week it was found necessary to patch with hoes all plats of kafir, milo, cotton, feterita, brome corn, grain sorghums, and some plats of cowpeas. This late patching will no doubt cause very uneven ripening this fall.

All row crop plats have been cultivated the past few days, and some hoeing was done to clean out ragweeds, which are exceptionally bad here this year. Cowpeas on Series 12, Field B, increase, were badly washed out and the ground was disked and replanted. June 1 date planting were made the first of the week. Some thinning has been done, and this will be the chief work of the coming week.

Corn stands waist high, and looks fine, but chinch bugs are going from the wheat plats to it, and we have sprayed several corn plats. A good percentage of the bugs were killed when the wheat plats were sprayed, but a large number of young bugs can now be found and bid fair to cause serious damage to row crops.

Oats are in the soft dough stage and look well. Wheat promised to make a good crop, but some plats are going down, dur largely to the effects of spraying. Grain will be ready to cut in a week.

Maximum temperature 88, minimum 58; average wind velocity 5.2 miles; precipitation .04 inches.

Mandan:

Horticulture.

About 4,000 tomato plants have been set out; these are second generation hybirds of the five best varieties adapted to this section of the country, and include 82 selections.

Seven hundred celery plants, and three hundred late cabbage plants were planted, and the final succession plantings in the demonstration garden put in.

The hoeing of shrubbery, and general care of the grounds has been kept up, and the taking of field notes has been commenced.

Agronomy.

Rotation plants to be fallowed this season were plowed on the 3 and 4, and harrowed on the 5.

Mandan, continued:

Agronomy.

All corn, botn in the rotation plats, and in the seed and feed blocks emerged between May 29 and June 2 with a good stand, and was harrowed on the 5. Flax emerged between the same dates as corn.

There was quite a marked difference in the time of emerging of both corn and flax between spring and fall plowing. Emergence on the former was from one to three days later than on the latter.

The weather for the week was characterized by abnormally low temperatures and light local showers.

Maximum temperature 69, on the 3 and 4; minimum 36 on the 2; precipitation .09 inches.

Cooperative Grazing Experiment.

The steers in the grazing experiment were branded, weighed, and separated into lots for the different experimental pastures. The average weight per head for the whole lot was 775 pounds.

Arboriculture.

Work this week has been cultivating the seedling trees of box-elder, ash, caragana, buffalo-berry, and Russian olive; the poplar cuttings and the conifers.

The dead trees pulled last fall in field "J" are being pulled and burned. These trees consisted of poplars and willows that had become diseased with canker, and some originally from the S.P.I. office that had proven a failure on this Station

North Platte:

Field work has been on a one-third schedule the past week. Rains have prevented work on all but two days. May precipitation was 3.49 inches. This is but .43 inches above normal, but most of the rains fell slowly and there has been a maximum amount of penetration into the soil. During the month of May there were 16 cloudy, 8 partly cloudy, and 7 clear days.

Small grains, pastures, and alfalfa are making a good showing. Corn is coming very slowly.

Scottsbluff:

The entire week was characterized by cloudiness and unusually low temperatures. While no frost occurred on the Station some localities report a light freeze. The minimum temperature recorded on the Station was 35. A shower which amounted to .19 inches fell on the 1.

Corn on many of the plats is being damaged considerably by ground squirrels digging up the kernel at the base of the young shots. Corn poisoned with strychnine is being used to kill them.

Winter rye on the green manure plats is about 30 inches high and will soon be ready to plow under. Young grasshoppers are beginning to make their appearance again in large numbers, and many farmers are predicting much damage from them this year.

Maximum temperature 89, minimum 35; precipitation .19 inches.

Woodward:

The past week has been rather warm and cloudy, with light showers on three days, and has been excellent growing weather. The tractor has been kept busy most of the week springtoothing, cultivating roads, the orchard and vineyard. Cowpeas for the variety tests have been planted;also, cowpeas for hay, the the increase milo and sorghum. Some replanting has been done on the

Woodward, continued:

plots where the moles ruined the stand. Cultivation of row crops has been commenced. Eleven moles were caught in the D.L.A. field during the week and several on other parts of the Station. Soil samples were taken on the CC winter wheat. Thinning has been commenced on the Cereal Office Project. Practically all of the grapes have bloomed and most of them have set fruit.

Mr. E. F. Chilcott left here for Washington, D.C.

Maximum temperature 92, minimum 53; average hourly wind velocity 7.1 miles per hour; evaporation 1.717; precipitation .29 inches.

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U. S. DEPARTMENT OF AGRICULTURE.

JUN 12 1920

REPORT FOR WEEK ENDING JUNE 12, 1920.
(Except as otherwise indicated.)

Akron:

The past week has been uniformly warm and the growth among all crops has been marked, especially corn. Wheat in this section looks exceptionally good and many predict a bumper crop if but one more rain falls before it fills.

The fallow and the green manure rye plats were turned under the fore part of the week. Millets and sorgos were seeded on the Cereal Project. Two acres were seeded to Sudan grass and millet to be used for feed. The rotation roads were graded and the orchard cultivated.

Maximum temperature 90, on the 9 and 10; minimum 35, on the 10; precipitation 0.

Belle Fourche:

All crops on the Dry Land Rotation are now up and doing nicely. There are spots in the grain plats where the silt washed down during the recent rains, completely covering the grain. The spots, however, are small and the damage done is hardly noticeable. There is a good stand of corn on all plats.

A rain of 1.41 inches on the 9 washed the soil thoroughly again. Soil samples show that the third foot of soil in the M.C. wheat plats is wet. This is the first time since 1909 that moisture has penetrated over two feet in these plats.

The precipitation for the year to date is 14.86 inches. This is .61 inches above the average annual rainfall.

Maximum temperature for week 94, minimum 44; precipitation 1.51 inches.

Big Spring: report week June 5.

Most of the week has been cool and cloudy, which has made it very pleasant for field work. All crops are growing rapidly and will soon be large enough to thin out to a regular stand. The date plantings of milo, kafir, sorghum, and cotton was made during the week. All crops in the rotation and C.C. plats, with the exception of peanuts, were cultivated for the first time. The four plats of sweet clover was mowed the fore part of the week. The average yield obtained from the four plats was 704 lbs. of hay to the plat, making an average yield of over three tons to the acre.

Maximum temperature 92, minimum 52; wind velocity 5.9 miles; evaporation 2.13 inches; precipitation .15 inches.

Big Spring:

The precipitation recorded fell in two light showers the latter part of the week. All crops are doing nicely and making a good growth. The winter wheat in the rotation and C.C. series was harvested this week, with the exception of two plats in rotation 164, which was not ripe enough to harvest. The average height of the wheat ranged from 21 to 23 inches. The station work this week has consisted in hoeing weeds and thinning crops in the plats and fields. Considerable excitement was occasioned in town the latter part of the week by the report that oil had been struck in one of the wells southwest of town. The report states that this well is standing from 500 to 1000 feet in oil. Considerable oil was bailed from the well and it was then capped. This well is down 2500 feet, at which depth the oil was struck.

Maximum temperature 96, minimum 54; wind velocity 5.3 miles; evaporation 2.35 inches; precipitation .35 inches.

Dalhart:

As much field work was done the past two weeks as was possible. Several days were lost on account of rain. Everything is now ready for the planting and this will go along rapidly when started. The first of the week will find the planting well started and without further delays it will be finished within a few days. The first dates are coming fine and will have to thinned. Two men were put to thinning the last of the week. The corn on the M.C. plats and the rotations is well up and will be thinned as soon as the dates are finished.

A picnic was held at the station this week, with good attendance. All parties seemed to have had a good time. The farmers cooperative association which was recently organized has asked to hold a picnic at the station on July 3. Permission was granted and a large attendance is expected. They asked to have it at this time, so as to get a large attendance of farmers together for a social time and to discuss cooperative matters. Four counties are expected to attend this gathering.

The station will be put in as good order as possible by the time of the picnic, so things will look neat and attractive, as well as interesting.

Dickinson:

Favorable weather has continued through the week with the exception of several local storms, which brought high winds and dust, but little rain. All crops have grown rapidly, as the moisture condition in the upper soil is good, but the sampling shows that very little moisture has penetrated as far as the third foot. The total precipitation to date is not as great as last year, and compared with the station average, the deficiency is over two inches. However, the distribution this year has been much better than last year, and crop prospects are much better than a year ago.

Mr. C. N. Ainslie of Cereal and Forage-Crop Insect Investigations, Bureau of Entomology spent two days at the station studying cutworms and sugar beet web-worms, both of which are numerous in this locality.

Maximum temperature 93, minimum 41; precipitation to date 1.60 inches.

Edgeley:

Rain occurred four days out of seven the past week. Field work has been practically at a standstill on account of the wet condition of the soil. Warm muggy weather has been the climatic condition for the week. All crops are making rapid growth, but are about two weeks behind the normal for this time of the year. Hay crops are showing up exceptionally well. Brome grass is practically all headed out and will make a good crop. Alfalfa is thin due to very dry weather last fall, which caused considerable killing.

Maximum temperature 87, minimum 41; precipitation 1.46 inches.

Garden City:

We have had a recurrence of our March winds every day this week, only they were not accompanied by soil blowing as in the early spring. The warm weather of the past week has caused the crops to grow very rapidly. The sorghums are all up to a good stand, and the oats and barley are headed out. If we do not get a rain soon, these hot winds will dry out the soil so that we will get very light yields from our spring sown grass.

Garden City, continued:

This week has been spent in trimming plats and in putting out grasshopper poison. The grasshoppers are coming into the fields in large numbers, and will do considerable damage unless they are kept under control by the use of poison bran and the hopper dozer.

The first cutting of alfalfa is being put up by the farmers of this vicinity now, and they all report a good yield.

Maximum temperature 96, minimum 57.

Havre: report week June 5.

The first four days of the past week were cool, with a minimum temperature of 33 on the 1. On this date there was frost at the station: Some localities report freezing. The latter part of the week has been warmer, which has materially stimulated the growth of the late grain. Corn on the rotation also came through the ground during the last two days.

Precipitation for the past week has been .23 inches; most of this fell as a shower on the 1. To June 5 we have had just about our normal rainfall. The following shows the 1920 record as compared with the 35-year normal rainfall for six months - from January to June:

	1920	Normal for 35 years.
Jany.	.88	.76
Feby.	.30	.47
Mar.	.40	.51
Apr.	1.71	.89
May	1.32	1.99
	4.61	4.62

The records taken at the Weather Bureau at Havre are more than those taken at the station. However, we seem to be having just about the normal conditions. From the station standpoint this is very desirable. As there was practically no stored moisture in the soil to start with this should give some idea as to the average conditions.

Wind velocity for the past week has not been as high as for the previous week. Much damage is still reported from wire worms and cut worms, and from the heavy growth of thistles in land that was drilled in without disking. There is a wide range of difference in the crops throughout the country at this time. Some of the early seeding that was well prepared is looking as good as it has at any time during the past four years, while other crops now are practically gone with thistles.

Havre:

The past week has been about normal as to temperature and wind velocity, but low in precipitation, there having been but a trace recorded. Grain seeded before the 10 of May is growing, but the later seeding shows very slow progress. Rye throughout the country is now about in the bloom from 12 to 20 inches in height. Spring grain on the rotations as yet shows little damage although some of the later stools have started getting yellow. Corn on the rotations is a fair stand, but the growth is slow, especially on spring plowing. Alfalfa is in the bloom and will likely be cut during the week.

Director F. B. Linfield visited the station on the 12.

Hays: report week June 5.

Previous to this week the weather has been rather cool for this time of the year, and yet not too cool for plant growth. The rainfall has been sufficient and so distributed as to stimulate all plant growth. Thus far, none of the crops have suffered a check in growth on account of dry weather. In fact, the growth of winter wheat on plats where there was a reserve supply of moisture in the fall has been somewhat over-stimulated by the very favorable spring conditions.

Winter wheat ranges in height from 24 inches on some of the continously cropped plats to 33 inches on the fallowed plats, and is generally very even. The continuously stubbled in wheat and that seeded on corn stubble is about 60 per cent headed while on fallow ground where the growth is heavier not more than 10 per cent is headed. Apparently, the winter wheat on the plats is doing fine and looks good for a heavy crop, but as a matter of fact there will be a loss of not less than from 15 to 25 per cent - and it may be heavier - because of the Hessian fly. Some fields in the county are 90 per cent damaged. Thirty and forty per cent damage will be common near the station and south of it. The fly was found by the writer in fields as far west as Colyer - 50 miles from Hays. The infestation is lighter as one goes west. It appears that not more than 8 or 10 per cent of the wheat about Colyer is infested.

Barley is from 21 to 30 inches high; 90 per cent in the boot, and looking fine.

Oats are about 18 inches high; a little slow heading, but looking fine.

Spring wheat is about 20 inches high and continues making good growth. No signs of heads yet.

The stand of corn on the project is not as good as usual, but the corn is about six inches and making healthy growth.

Kafir, milo, and cane are coming up nicely and gives promise of a good stand.

Rye had reached a height of about 42 inches on May 31 and has been turned under.

Peas are about 20 inches high and blooming. Stand a little thin.

Alfalfa is about 12 to 20 inches high and about ready to harvest.

Brome grass had made a little better than average growth. It is about 60 per cent headed. The seed stalks are about 20 inches high.

Alfalfa and brome, seeded this spring, still looks promising for a permanent stand.

Grasshoppers are beginning to appear in goodly numbers. These are mostly young ones just hatching.

There are to be found a few adult chinch bugs in the wheat fields. They are not numerous enough to cause much alarm, but it looks as if some work may have to be done to prevent damage on the plats by the grasshoppers.

Mr. E. F. Chilcott visited the station June 3. Mr. J. Allen Clark, of the Cereal Office and Prof. Parker of the Kansas State Agricultural College were visitors at the station June 4.

Maximum temperature 82, minimum 49; precipitation .09 inches.

Huntley:

The week has been warm, with frequent high winds. Thunder storms have passed on each side of the valley, but we have received practically no precipitation. Winter wheat is beginning to fire badly in spots where the stand is thick, and the crop as a whole looks dry.

Spring grains are doing nicely, there being plenty of moisture in the upper two feet to keep them going for some time. Below this depth the soil in most cases is dry. Corn is well germinated and coming through the ground though no plat has a stand as yet.

Huntley, continued:

Planting of potatoes, beans, and some miscellaneous crops was done during the week, and plowing of summer fallow is well under way. Roads and alleys in the rotation field are being cleaned up.

Hogs weighed during the week showed small gains being made on the rye pasture, the average being about .5 lb. per hog per day for the 14-day period. This lot contains 15 hogs on the acre of rye. The crop had grown very coarse and was well headed out. The animals confined their grazing to small areas which they had kept closely pastured and on which a new growth of rye was being made. The whole plat was clipped Saturday in the hopes that new growth would be made over the entire area.

Hogs on alfalfa and brome grass pastures averaged about .7 lb. per day for the period.

Maximum temperature 91, minimum 39; precipitation .11.

Judith Basin:

The weather during the past week has been comparatively warm and favorable to crop growth. Frequent showers in the last few days have been of considerable benefit to alfalfa, flax, and other crops seeded late. The rains, however, have very noticeably interfered with field work.

Peas, flax, alfalfa, red clover, and brome grass seeded on the rotations are up with a good stand. Corn is well sprouted. Winter rye is about 15 inches high and is commencing to head. Winter wheat is still rather backward and is making a slow growth. The stand of winter wheat on plat A of the continuous cropping series is approximately 75 per cent; the stand on the M.C.D. is about 50 per cent and on the M.C.B., E and F the stand was less than 25 per cent. The latter three plats have been disked up and replated to spring wheat.

All seeding on this station has finally been completed and the breaking of the 120 acre field of native sod will be finished in about three more days. Fencing of the west side of this field has been commenced.

Maximum temperature 79, minimum 36; precipitation .55 inches.

Lawton:

Grain sorghums and all sorghums in rotation were thinned the past week. Cotton has been chopped and looks well except where replanting was done in washed-out rows. Cotton and kafir in this section are exceptionally late and in many fields the weeds completely hide the rows.

All fallow plats were disked this week and are now in excellent condition to receive and retain moisture. M.C. sorghum and most of the cotton and cowpea plats have been recently cultivated. Soil moisture samples were taken the 11.

Fourteen plats of wheat were cut this Saturday and harvesting will be the chief work the coming week. A large amount of wheat is now being cut in this vicinity; most of it is rather green for lodging is occuring. Oats are ripening a few days behind wheat.

Myriads of young chinch bugs are to be found on the wheat plats, and either burning or spraying the stubble will be practiced on many plats to prevent injury to adjoining row crops.

Maximum temperature 91, minimum 60; precipitation 0; evaporation 1.724 inches; average wind velocity 4.3.

Mandan:

Horticulture.

Potted fruit trees for breeding proposes which did not bear fruit, have been moved to their summer location out of doors. Cultivation and hoeing has been continued.

Agronomy.

Hoeing of alleys between rotation plats has been completed and the first cultivation of corn has been commenced. Trimming of miscellaneous blocks and plats, and cultivation of roads in Field M was completed early in the week.

On the whole, field crops on the station are looking good. Small grains on the fall plowed and subsoiled continuously cropped plats, are suffering considerably from lack of moisture. Unless a substantial rain occurs within the next few days, the crops on these plats will fail entirely. Small grains on fallow look very good, and on corn land nearly as good.

The weather of the week was characterized by much higher temperatures than that of the preceding week. Local showers, while of little direct benefit to crop growth, served to check evaporation. On the whole, vegetable growth has been very much stimulated by the general increase in temperature.

Maximum temperature 92, on the 8; minimum 51, on the 10; precipitation .38 inches.

Cooperative Grazing Experiment.

The first clippings were made on the 30-day, 40-day, and rotation pasture quadrats, and the second clippings on the 10-day and 20-day quadrats. Of the grass cover on the more frequently clipped squares, carex filifolia predominates at this time. Of the cover on less frequently clipped squares, stipa comata, seems to be a little more abundant than any other one species.

Arboriculture.

The field work this week has consisted in cultivating the fields of tree seeds, experimental blocks, shelterbelt combinations, and species blocks. Watering of the conifer seed beds, also was done, in lieu of the rain which seems to be going around us.

Work in the office on making inspection sheets and route maps, is in progress, and will be finished next week, ready to begin the summer's inspection work.

Mr. N. O. Henchel, who has done excellent work as assistant in this office since June 1917, has resigned to go into the "berry" business in Washington State. Mr. Arthur Emerson arrived June 1 from South Dakota, and will make inspections in North Dakota and Montana this summer.

North Platte:

The week has been dry, bright, and warm. Maximum temperature for the week has been above 90 degrees, and 97 degrees has been reached.

All crops and weeds are making a fine growth. Corn is being cultivated and the first cutting of alfalfa is beginning in the neighborhood. Ground was prepared and seeded to sorghum during the week. On the plats this concludes the spring seeding of crops, which has extended over a period of 65 days.

Scottsbluff:

The week just ended was the most favorable for crop growth of any of the present season. Real summer temperatures, sunshine, and a lack

of wind prevailed the greater past of the week. Surface soil had begun to get very dry but a down-pour of rain amounting to .73 inches occurred on the 10. However, the rain was of the torrential variety and considerable run-off occurred. A small hail storm preceded the rain, but did no damage.

Considerable weed growth was starting on the fallow plats, so these were plowed during the week. Alfalfa has made good growth and a light crop will be harvested this year, although not much of it survived the drought of last summer and the severe winter.

Station visitors included Mr. O. J. Grace, formerly superintendent of the Akron station in Colorado. Mr. Grace recently purchased and irrigated farm in this section.

Maximum temperature 95, minimum 46; precipitation .76 inches.

Sheridan: report week June 5.

A fine rain fell nearly all day on the 31. While there was plenty of moisture in the ground, the surface was getting rather dry. Nearly half an inch of water fell at that time, putting the ground in good condition for late seeded grain and for seed still to be put in the ground. The entire week was for the most part cool and cloudy with a few light showers.

The ground was too wet to work Tuesday, and consequently the June 1 date of seeding was not seeded until the next day. Sorghum in the varieties, rotations, and bulk for feed was seeded during the week. Preparation of ground for Sudan grass for feed, and methods of seeding alfalfa and sweet clover was completed. The alfalfa and sweet clover have been seeded. Volunteer rye on ground for fallow for the varieties and bulk field was mowed for hay.

All crops are making a fair growth and are looking well. Winter rye is just beginning to head out. Corn is just coming up.

Maximum temperature 70, minimum 35; precipitation .53 inches.

Sheridan:

The entire week has been hot and dry. Crops in general have been making a rapid growth. The winter wheat seems to be improving, and some of it is beginning to shoot. Some of the plats, however, look rather poor. Both the winter rye seeded in the stubble, and the volunteer winter wheat on stubble which was untouched, have made a much better growth than the same grain on well prepared fallow.

The potatoes and beans have emerged. Sudan grass, sorghum, and sunflowers seeded last week, and alfalfa seeded the 5, have emerged. Corn is up with a good stand. The sweet clover seeded last year, of which there were only small scattering of live plats early in the spring, has now emerged with a good stand. The greater part of the seed apparantly remained in the ground until this spring before germinating.

The rye which was cut for hay was put in the barn early in the week. There was about 5 tons from about as many acres. This helps our hay situation considerably for the present, as the supply on hand was running rather short. The alfalfa is just beginning to bloom, and will shortly provide more hay.

Block C of field B was plowed for fallow during the week. A heavy growth of volunteer winter wheat was turned under. The ground was packed with the double disk each day as plowed. It was beginning to get rather dry, and plowed up lumpy in places.

All of the roads were marked out, and a part of them have been double disked. Cultivating corn was begun today. Sudan grass, millet, and sorghum was weeded in bulk for feed.

Maximum temperature 91, minimum 45; precipitation .04 inches.

Tucumcari:

The experimental planting was begun Monday of this week and finished Friday. There still remains a few days planting of seed crops and crops for feed. There is some disking and plowing to do yet in a strip of waste land along the fence at the south end of the south field. This strip will be drilled to suday. The sumac sorgo and sunrise kafir were planted today for silage crops.

Last week all teams were busy getting the plats and fields in shape for planting. Several days were lost on account of rain, but the rain came at the best possible time. The soil was so dry in the first six inches of surface that it was useless to plant.

Weeds are growing raridly, and it will be necessary to disk the plats that go in the next two dates before planting. It seems that the weeds came up over night after the last rains and have made good progress since. The plats that are already in good shape, except the first two dates, will have to be cultivated right away, then thinned. The stand is so good that a good deal of thinning will be necessary.

The field mice and rats are so thick here that some poison bait was scattered today to help eradicate them. It was a long chance to take by allowing them to go on unmolested. The County Agent states that farmers over the county are working in cooperation with the Biological Department in eradicating the rodents.

The horse that was cut in the wire on the 31st of May is getting along fine. It has been necessary to work the driving mare in place of the disabled horse so as to keep three teams going.

Woodward:

The past week has been very hot, dry and windy, with a great amount of evaporation and no precipitation. Crops in some parts of the field have made good progress and in other places apparently lack moisture and are not doing so well. The orchard and some of the ornamental plantings were cultivated with the tractor; cultivation of row crops has been continued. All of the first cutting of alfalfa has been cut and put in the barn. Most of the thinning of row crops on the Cereal Office Project has been finished and about half of it on the D.L.A. plats done. The suckers have been trimmed out of the vineyard and some of the vines tied up. All of the crops on the plats that were replanted last week are up with a good stand. Three plats of cotton were replanted on account of not securing a stand the first planting. Wheat and rye are filling out well at present but seem to be needing moisture. Thirteen more moles were caught in the D.L.A. field during the week.

Maximum temperature 96, minimum 70; average hourly wind velocity 10.1 miles per hour; evaporation 2.380; precipitation 0.

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U. S. DEPARTMENT OF AGRICULTURE.

JUN 1 6 1920

REPORT FOR WEEK ENDING JUNE 19, 1920.

Akron:

The past week was characterized by heavy rains, a total of 2.39 inches having fallen since last report. A heavy rain of 1.13 inches on the evening of the 16 was accompanied by some hail which did minor damage to early headed grains and to garden truck. No damage has been reported from surrounding country, and the only damage here on the station was to some barley which had already headed. The rains which followed this first heavy rain were less of a torrential nature and the run-off was less. These rains should insure a good wheat crop. The 15-year average from the first of the year to July 1 is 9.71 inches and thus far we have had a total of 10.2 inches of rainfall well distributed.

All the corn except about one-half of a days work on one increase field was plowed before the rain. Station roads were also gone over again and three fallow strips double-disked, and one fallow strip plowed. Work at present is at a standstill.

Maximum temperature 88, on the 12 and 13; minimum 45, on the 12; precipitation 2.39 inches.

Big Spring:

The weather conditions have been quite varied this week. The fore and latter part of the week we had several light showers. None of these rains were very heavy, but sufficient moisture fell each time to make soil wet. As a consequence of this favorable weather, all crops are growing rapidly. The work on the station this week has consisted in hoeing and thinning crops, cultivating, and doing general farm work. One or two days was too wet for field work, other than thinning and hoeing weeds. The date plantings of milo, kafir, and sorghum were made on the 15.

Maximum temperature 96, minimum 58, wind velocity 4.7 miles per hour; evaporation 2.17 inches; precipitation 1.16 inches.

Colby:

Crops on the Colby station are later than usual, because of climatic conditions and it is not likely that much harvesting will be done before the 10th of July.

Spring wheat and oats suffered severely from a lack of moisture during the fore part of June and some of the winter wheat and barley plats were also damaged also. Winter wheat on fallow gives promise of big yields, and all crops will be greatly benefited by recent rains.

Fallow plats have all been plowed and the rye was plowed under for green manure, but the field peas are not yet ready. Corn is just ready for the cultivator, but sorghum crops are still very small.

Prior to June 17 all recent rains had been very light and the subsoil was getting dry, but on this date the precipitation measured 1.71 inches. Other showers followed on the 18 and 19, and the total for the three days amounted to 2.44 inches. Present conditions indicate that more will follow. This moisture will insure a fair harvest of both wheat and barley.

Mr. Hallstead of Hays visited the Station on June 17 and 18.

Dalhart:

The first two days of the week were too wet to do field work. During this time the men did hoeing around the ornamentals and nursery. The field

Dalhart, continued:

operations were resumed Wednesday and continued until Friday evening. All the experimental planting was finished Friday about 3.30 p.m. There still remains a little plowing to be done and the planting of the seed crops. The field corn and the first three dates are up and growing fine. None of the planting is up that was done this week.

Friday was cold in the forenoon and in the afternoon it was sultry. About half an hour after the experimental planting was finished the sky clouded over suddenly and it began to sprinkle. In less than an hour it was raining and hailing. The hail did no damage. The rain fell hard and fast, 1.33 inches being recorded within an hour. Most of the plats took up the water in good shape. There was very little washing. One full series, which is alternated with sorghum varieties and fallow is under water. Two drain ditches have been dug to drain it, but there is so much water on it that the large amount already drained off hardly makes a showing. There is little doubt but that this will have to be replanted. The listed furrows are standing full of water. Everything that was planted this week will more than likely have to be harrowed as soon as the ground will permit in order to break the crust and allow the crops to come through.

If there is any place in the country with a larger variety of bugs than here they should be pitied. Grasshoppers are the thickest they have been in years. They are swarming everywhere. The harlequin cabbage bug is here by the millions and are sapping the ash trees until they are drooping, and in many cases the limbs are touching the ground. The least wind will cause them to break. The bugs flew in here and commenced work. This is the first year they have been very noticeable. Contact sprays are of no avail, so hand picking was resorted to. This is effective and pretty rapid since the bugs are so thick. No men can be hired for our field work let alone the other, so it became necessary to hire children to do the bug picking. The foreman's three children worked Friday and made a big showing.

One man was transferred from Tucumcari Friday to assist with the work at Dalhart. Two more men are needed badly, but none can be found. Labor around this section is drifting toward the harvest fields.

Many farmers are having to replant on account of bugs destroying their crops. They are plowing under the crops and bugs, and will replant. The rains in this section have caused many to replant, and more will have to replant after the rain of last night.

Total precipitation to date for June is 4.47 inches.

Dickinson:

The weather has been cool and cloudy during the greater part of the week. One June 16 a rain of 1.12 inches occurred, making a total of 2.72 inches for the month, to date.

Crops at the substation and in the county are in good condition, except that some fields are quite weedy. Damage from cutworms in corn and also small grain is reported from different localities, but very little damage at the substation has been caused by these pests.

Rotation plats are in good condition and growing rapidly, except corn which is small due to the cool weather.

Maximum temperature 90, minimum, 50; precipitation 1.12 inches.

Edgeley:

Ideal growing weather has prevailed throughout the entire week with high daily and night temperatures. All classes of crops are making rapid

Edgeley, continued:

growth. Brome grass is doing exceptionally well this year. Where fall plowing was practiced, all crops are quite weedy. French weed is very bad in some of the plats, especially in the continuously cropped plats. Corn is only about five inches high. The rainy weather has interfered considerably in cultivation of the corn at the proper time to keep weeds well under control.

Maximum temperature 83, minimum 40; precipitation .20 inches.

Garden City:

A good rain, totaling 1.22 inches fell on the night of the 17, but stopped field work for the last couple of days. This rain came as a blessing to the wheat crop of this vicinity which was suffering very much from the lack of moisture. Although the soil was getting very dry, the row crops have not suffered very much as yet.

The work this week consisted of trimming plots and cultivating alleys. The first cutting of alfalfa was finished this week, and an average of 2.54 tons per acre was obtained from an eight acre field.

Maximum temperature 93, minimum 53; precipitation 1.22 inches.

Havre:

The past week has been characterized by local showers, with cool and partially cloudy weather. Precipitation at the station was 1.06 inches. At Havre, seven miles away, the weather Bureau recorded over twice this amount. Throughout the northern part of the State showers have been heavy in places. There are places where the soil is not wet more than three inches, and other places where it is wet eighteen inches or more.

The western cut-worm is still doing considerable damage to crops. Many fields of grain on fallow have been completely destroyed during the last two weeks. Since the rains of the last week, some of these fields are being reseeded to flax. They have done a little damage to the corn on the plats, and are still at work. The greatest damage, however, seems to be on the commercial fields of corn that were put in on spring plowing. The later the plowing the worse the damage seems to be. This may, however, be only a coincidence.

Field work on the station for the past week has consisted in preparing the bottom fields for alfalfa and completing the fields that are to be fallowed. Roadways are being cultivated this season with a Clack weeder manufactured locally under the Jones patent. This implement is the most satisfactory weeder that we have yet used for keeping roads clean.

Hays:

All small grain crops had commenced to suffer considerably from drought and heat, but the rains of this week have broken the drought and the crops seem to be much improved. The rains and cool weather have made harvest one week later than it would have been had the dry weather continued. Harvest will commence on or about the 28.

Row crops are all making fine growth. Thinning of these crops was finished during the week. But little field work was done after Thursday on account of the wet weather.

The Annual Wheat Day program is in progress today. On account of the very muddy roads, the attendence is much smaller than was expected.

Maximum temperature 96, minimum 52; precipitation 1.30 inches.

Judith Basin:

The week has been characterized by frequent showers and comparatively warm weather. Rain has been received every day for the past nine days, and with the exception of the last two days during which a slow drizzling rain has fallen, the precipitation has occurred in the form of heavy thunder showers of short duration. Hail generally accompanied the showers, but did very little damage on the station. It is reported, however, that six inches of hail was received about 18 miles west of us early in the week, and the following day a heavy storm occurred about 10 miles away, in which the hailstones actually measured 1¾ inches in diameter. Aside from doing great damage to crops, the latter hail storm also broke a great many windows and destroyed the roofs of houses and barns.

The wet weather has interfered with field work to a great extent, and a large part of the week has been devoted to putting up fences. Fencing and plowing of the 120-acre field of sod has been completed.

All crops are making a very rapid growth. Winter rye and brome grass have headed out and the border growth on the alfalfa plats is nearly two feet high. Corn and sunflowers are up.

Maximum temperature 73, minimum 42; precipitation 1.42 inches.

Lawton:

Precipitation of .45 inches the night of the 17 broke the drought which has continued since May 28. The past two days have been cool and cloudy, and the light rainfall received will help row crops immensely.

All plat grain and the 12-acre field of oats have been cut and shocked. Cutting and shocking was completed just before the night of the high wind and rain.

The second cutting of alfalfa was made this week. Soil moisture samples were taken the 17.

Ends of all plats have been trimmed and most of the roadways cultivated. Crops are making good growth, but are not uniform, due to replanting two and three times.

Maximum temperature 97, minimum 57; average wind velocity 6.0 miles per hour; precipitation .50 inches; evaporation 2.013 inches.

Huntley:

The fore part of the week was hot and windy, but the drought was broken on Thursday and Friday, when a "million dollar" rain amounting to 1.61 inches fell. This should serve to germinate seed which has been lying in dry ground since planted and should connect up the seed-bed with the moisture in the subsoil. The rain will especially benefit winter wheat which in many places was greatly in need of water. Farmers have reported winter wheat heading out at a height of 12 inches and drying up badly. Volunteer winter wheat on the plats is heading out in some places, but the sown wheat is not so far advanced.

Corn is practically all up. As was the case last year, the fall plowed plats show a very uniform stand, but that on spring plowing is uneven, due to the rapid drying out of the spring-plowed ground.

Late seeding of sunflowers and other miscellaneous crops was completed during the week. Plowing of summer fallow and of the rye plats in the green manure rotations was also finished.

Rye in the pasture rotation which was clipped a week ago seems to be making a good second growth, and the plat again looks green.

Maximum temperature 83, minimum 50; precipitation 1.61 inches.

Mandan:

Horticulture.

The work this week has been confined mostly to fighting insect pests and weeds. All seedlings, both vegetable and fruit, have been sprayed with arsenate of lead and Paris green. Most of the damage was done by the black blister beetle, but grasshoppers and tent caterpillars are also very numerous this year.

The various sample hedges in the Arboretum have received their first shearing. Most of them came through the winter fine, and had already made considerable new growth.

Everything is still holding its own. A good crop of plums, currants, juneberries, and sandcherries, may be looked for if rain falls within a week or so.

Agronomy.

The first cultivation of corn was completed early in the week. This crop is doing well in spite of the dry weather and is fairly free of weeds.

The different cultural treatments with small grain shows marked differences at this time. Grain on fallow is in good condition and growing. The same is true on corn ground. The CC plats are very poor and are now practically beyond help by rain. The E plat is practically dried up.

Maximum temperature 93, on the 13; minimum 46 on the 18 and 19; precipitation 0.

Cooperative Grazing Experiment.

The cattle are picking up rapidly, but the grass is much shorter than usual and has not made much growth the past week.

North Platte:

In contrast to the high temperatures and clear skies of last week, the past five days have been cool and cloudy. But .22 inches of rain has fallen, however.

In the ee wheat series an average soil moisture reduction of 4 per cent took place in the upper three feet from June 8 to 14.

Winter wheat has come into full head during the week. Corn is beginning to show above the lister furrows, and sorghum crops are just coming up.

Scottsbluff:

Weather at Scottsbluff continued cloudy and cool the greater portion of the week. Rain fell on four of the seven days, the total amount recorded being 1.17 inches. A few miles up the valley a cloudburst was reported. More than eight inches of rain fell in a very short time. A violent hail storm accompanied the rain and practically destroyed all vegetation in that area.

All crops on the station are in good shape. All corn plats were harrowed during the week. Winter rye plats for green manure were plowed under.

Crop conditions on the project in general are very good. Most farmers are optimistic over the early season prospects. A vast increase in the sugar beet acreage is reported by the local sugar company, and the condition of the crop at this time being 100 per cent. A number of fields on which poor stands were secured are being disked up and reseeded to barley or millet. The first crop of alfalfa is about ready to cut, and indications are that the

Scottsbluff, continued.

yield will be up to normal.
Maximum temperature 79, minimum 47; precipitation 1.17 inches.

Sheridan:

The first three days of the week were favorable for field work. Some crops were beginning to show need of rain. The newly seeded crops were especially in need of it, as the surface soil was getting quite dry. Thursday morning a heavy rain came over, lasting nearly all day, and soaking the soil in good shape. Toward Sheridan, however, very little rain fell that day. Yesterday afternoon another heavy rain began which lasted until this morning. Some of the last rain ran off, but the soil is now thoroughly soaked. Water is standing on the lower end of Plat A, Rot. 132, which is to be plowed for green manure.

All of the variety and bulk corn was cultivated the first of the week. The shelterbelt was also cultivated. The rye plats for green manure were plowed, and plowing was begun on the fallow plats. All of the roadways were disked up and a portion of them graded. The ground was so dry, however, that it was difficult to get the weeds out. They can now probably be disked out in good shape.

The crop situation is still favorable, although weeds have been coming on very fast.

Maximum temperature 90, minimum 45, precipitation 1.83 inches.

Tucumcari:

The crops at this place are all up in good shape and making rapid headway, that were planted last week. The feed and seed crops were finished this week. A good bit of the ground devoted to these crops had to be disked and harrowed again before planting could be done, because of the rapid weed growth.

One man was sent to Dalhart this week to assist with the work there. The force remaining have been kept busy cleaning the weeds out from around the buildings and ornamental plantings.

The labor situation at this place is not so critical as is reported at Dalhart. One of the laborers, however, is beginning to show unrest and talks about the high wages of the harvest fields.

The first two dates of planting were thinned this week. The second soil sampling was done on Tuesday.

Woodward:

The fore part of the week was very hot and windy, the maximum temperature being 100 degrees; the latter part has been cool and cloudy with precipitation totaling .76 inches falling on three different days. Field work for the week has consisted mostly of cultivating and thinning with some hoeing around trees and ornamental plantings. Nearly all row crops have now received their first cultivation. Most of the thinning on the D.L.A. plats has been finished, and some more thinning has been done on the Cereal Project. Cotton which was replanted the latter part of last week is now up with a good stand. Most of the wheat on the station is ripe and six plats have been harvested. All that is ripe would have been harvested before this if we had not had rainy weather the last three days. The town is full of harvest hands and harvest will begin in earnest as soon as the weather clears up. Some binding and a little heading has been done already.

Maximum temperature 100, minimum 59; average hourly wind velocity 9.8 miles per hour; evaporation 2.456 inches; precipitation .76 inches.

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U. S. DEPARTMENT OF AGRICULTURE.

JUN 28 1920

REPORT FOR WEEK ENDING JUNE 26, 1920.

Akron:

Since the heavy rains of last week weeds have started to grow everywhere. Corn plowing was started yesterday, and all but the variety planting on the Cereal Project was gone over for the second time this season. During the fore part of the week road grading and fence building held attention.

On Monday and Tuesday the sheep were given their monthly weighing and changed into new pastures. Mr. E. J. Maynard of the State College was here in the interest of this work. Mr. F. L. Kelso also visited the station.

Maximum for the week 86 on the 25; minimum 47 on the 19; precipitation .21 inches.

Belle Fourche:

The weather continues cool and rainy. Up to the present time the precipitation for the growing season is in excess of the evaporation. The precipitation for the year to date is 18.27 inches. For June the rainfall has been 5.18 inches.

Crop prospects are the best in years. Outside of the few plats that were damaged during the heavy rain, all plats of grain are in excellent condition. Barley is heading and wheat and oats are forming straw rapidly. Winter rye is well headed, and there will be a large amount of green matter to turn under on Rotations 14 and 15. Corn is not developing as rapidy as the grain crops, but its condition is not far from normal. All plats of corn were thinned, and the roads and alleys cultivated during the week.

Maximum temperature 85, minimum 43; precipitation 1.49 inches.

Dalhart:

Field work for the past week has been delayed on account of heavy rains. Only a little planting has been done since the last rain, and this was on a sandy strip at the highest point on the station. There still remains at least two days planting of crops for seed. Much of the time has been spent in trying to prevent the young crops that are just emerging from blowing out. It seems that the winds will never stop blowing. Since the two heavy rains that occured recently, the whole station was left in a bad condition which favored blowing. For the past several days the wind has been blowing to such an extent that the land blows before the ground is dry enough to work. Every effort is being put forth to prevent the experimental plat work blowing out. Everything came up to such a good stand that to lose it would be disasterous.

The winter rye is being cut and bound today. Some of it was so far along that it would not have stood much longer. It has ripened very rapidly the last few days. Today is the first time the binder could be run on account of the plats being too wet. The rye looks as if it might make between 25 and 30 bushels per acre on all plats, but M-C A. The fallow plats are being plowed today. This is later than we expected to plow them, but it is as early as they could be plowed. The plats have been too wet for nearly two weeks to plow. Soil samples taken (second time) this week.

Farm labor is in demand in this section and hard to hold. There are farmers scouring the country trying to get men to work and are offering from $90 to $100 per month and board. With such wages as this being offered, it can be imagined how hard it is to have to compete with this situation. If this rate keeps up it will make a big bust in affairs. Of course, such wages cannot last long or the farmers would go broke, but even such wages for a short period makes it hard for help to be secured for the station with wages that can be paid.

Dalhart, continued:

One man was transfered from the Tucumcari field station to help out with the team work this week. It is now necessary for him to return to Tucumcari for team work at that place, and bring another man to Dalhart for temporary duty in helping to get things cleaned up before the picnic.

Rainfall for the week 1.10 inches with some hail which did very little damage; maximum temperature 92, minimum 52. High winds prevailed during the week.

Dickinson:

The cool weather that has prevailed during much of the present month has continued during the present week. The rain of 1.12 inches on June 16 was duplicated by another of 1.12 inches last night, which makes a total of 4.19 inches for the month, to date. Crop conditions are much improved since early in the month, as a result of the rains, and small grains are making a rapid growth.

Early varieties of wheat, oats, and barley are beginning to head, and the varieties in the rotations will begin heading next week.

Corn in the rotations received the second cultivation during the week. It is a good stand, but needs warmer weather to make its best growth. The 4-acre plat of sunflowers promises a bumper crop.

Crop conditions in this section are good except that weeds are numerous in fields that were disked in on stubble land. Russian thistles which have become numerous during the past three dry seasons are showing the effects of the cool, wet weather, and will soon be hidden by the grain.

The station was visited during the week by Director P. F. Trowbridge.

Maximum temperature 81, minimum 42; precipitation 1.47 inches.

Garden City:

The weather this week has been hot and dry which has caused the wheat to ripen off very fast. Harvesting in this vicinity will start next week, and from present indications a fairly good yield will be obtained.

The time this week has been devoted to plowing roadways and cultivating the rowed crops; the latter are looking very good now, but some of the small grain plats show very little prospect of making any grain.

Maximum temperature for the week 97, minimum 47; total precipitation .17 inches.

Huntley:

Cool, cloudy weather has prevailed most of the week, and the moisture received during the previous week has been allowed time for penetration, very little being lost by evaporation. Another torrential shower amounting to .34 inches fell Wednesday evening in the space of a few minutes. Considerable runoff took place and all coulees, ditches, and low places were flooded. Hail accompanied the storm in some sections and reports received at the station are to the effect that the damage done was very great.

All crops have made a wonderful growth in spite of the generally cool weather. Winter wheat is now in full head and averages about 30 inches in height. Corn is growing slowly and is poor in color, though the germination and stand is good on all plats.

Maximum temperature 84, minimum 45; precipitation .37 inches.

Mandan:

Horticulture.

Hoeing and general cultivation has been continued. Both trees and vegetables have made fair growth considering the dry season. Some of the junaberries, strawberries, and red currants are beginning to ripen, and the first harvestings from the demonstration garden, consisting of cauliflower and peas, were had on June 21.

Agronomy.

Brome in the rotations, and brome and Siberian wheat grass in the Forage Crop Investigations, were cut on the 23.

Grasshoppers in numbers sufficient to harm crops have been noticed in local spots about the farm. Poison bran bait was scattered on the 24, and is beginning to show some positive results in the form of dead and sick hoppers.

The third year brome and alfalfa in rotations 41 and 42, were plowed under on the 26.

The weather of the week was characterized by local showers during the fore part, and two fair rains during the latter part. Low temperatures and cloudiness have contributed materially toward saving crops which have not already suffered severely from drought.

Maximum temperature 87, on the 24; minimum 47, on the 23; precipitation 1.08 inches, of which 0.27 occured on the 24, and 0.49 on the 26. The 45-year average for June is 3.51 inches.

Mr. W. E. Brensel, of the Office of Cereal Investigations, visited the station on the 23. Mr. J. M. Stephens returned to the station on Saturday morning, June 26.

Arboriculture.

Mr. H. L. Person of Minnesota, arrived Monday and will make inspections of shelterbelts in South Dakota, Wyoming, and Southern Montana.

Mr. Cobb, accompanied by Mr. Emerson and Mr. Person, made a trip to Selfridge and back Wednesday, inspecting planting. They left Friday and will visit all cooperating farmers along the South Branch of the Northern Pacific Railway to New England in the western part of the State, and back along either the Main Line of the Northern Pacific, or the North Branch.

Tucumcari:

Field work for the week has consisted of plowing of the fallow plats, taking of soil samples, disking, and in planting alternate plats of milo and cowpeas in the south field. Some hoeing was done in the south field, where the weeds were making too much progress.

The field work was delayed for several days on account of rain. At this time the implement shed was cleaned, some trash hauled off the ornamental circle and weeds hoed from around the ornamentals. The second date of planting was thinned and cultivated this week. The orchard was cultivated and weeds hoed from around the trees.

Crops are making a good showing and will soon be large enough to cultivate.

Woodward:

The fore part of the week was a continuation of the cool, cloudy wet spell of the last week. We had small showers on three days, which totaled

Woodward, continued:

only .16 inches. The latter part of the week has been very hot and windy. The wind averaged 18.0 and 16.3 miles per hour on the 24 and 25, respectively, for 24-hour periods, and 21.7 miles per hour on the 25 for 8 hours, with a maximum temperature of 97 degrees.

We finished harvesting the wheat and rye the first of the week, with the exception of a few plats of wheat that are still green. Soil samples were taken once on the CC winter wheat and twice on the CC winter rye. Other field work has consisted principally of cultivation of crops and roads, and trimming of plats. Practically all thinning was finished the first of the week.

Mr. E. F. Chilcott returned from Washington, D.C. on the 21.

Maximum temperature 97, minimum 53; average hourly wind velocity 9.0 miles per hour; evaporation 2.146 inches; precipitation .16 inches.

Big Spring:

The precipitation this week has been light at the station, though part of the county got some good showers. The crops in one of the joining counties to the northwest of us, was badly injured by a severe hail storm on Tuesday night. All crops on the station are growing rapidly and looking well. Most of the plats and the crops in the north field were cultivated this week. Maximum temperature 93, minimum 60; wind velocity 5.2 miles; evaporation 2.13 inches; precipitation .08 inches. A good-road bond election was held today and carried by a majority of ten to one. With the Federal and State aid, this county will have five hundred thousand dollars to spend on good roads.

Colby:

Weather conditions at Colby during the past week have been very favorable for all growing crops, but not for field work. Some rain has fallen nearly every day. The temperatures have not been as high as for the preceding week, but it has been fairly warm and there has been a marked improvement in the condition of all growing crops.

The soil now contains sufficient moisture to mature a very fair crop of the small grains and feed crops.

Rowed crops were cultivated for the first timw during the past week, and some of the fallow ground was worked down so that it may be left until after the harvest without further attention.

Very little harvesting will be done before the second week in July. Crops are much shorter than last year and easier to handle, but yields will probably average about the same for the county.

Maximum temperature 88, minimum 47; precipitation .97 inches.

Edgeley:

Cloudy weather has prevailed throughout the week, with local light showers. Small grains and corn are making rapid growth. The moisture content of the soil is holding about the same as it was earlier in the season. The percentage of moisture in the soil ranges from 12 to 30 per cent. Weekly determinations are being made as per instructions sent out by the central office earlier in the season. This requires the entire time of one man. Rust is developing in the grasses and grain. The weather is very favorable for the development of rust. Grasshoppers are not showing up to any appreciable extent in this locality, although reports of considerable damage is reported not far distant.

Maximum temperature 79, minimum 40; precipitation .65 inches.

Havre:

During the past week we have had 1.06 inches of precipitation. Seventy-five hundredths inches fell on Tuesday in the form of a heavy shower which was accompanied by a strong wind. Some damage was done in places. Two of the older brick buildings here that are not in use were wrecked. In town the damage done was mostly to plate glass and to buildings under construction.

Crop conditions have improved a great deal during the last week. The oats and barley on the rotations are heading. Some early fields of Marquis in the locality are also headed, while all fields that were not injured early by the growth of thistle are in excellent condition. Corn had made very slow growth, but sunflowers are growing nicely. Cut worm damage is still being reported, and a few farmers are still seeding flax on land where the wheat has been entirely taken with the worms.

Maximum temperature 85, minimum 44.

Hays:

During the week the weather has been dry and warm, having reached 100 degrees for two days. It is the first 100-degree maximum for this season. Corn and sorghum crops are making fine growth. Winter wheat and barley have been ripening rapidly the last few days. All the barley plats will be ready to cut by Monday, and probably 25 of the winter wheat plats will be ready for harvesting by that time. Oats have not made as good recovery from the effects of the recent drouth. The heads are small and though considerably burned by the drouth, they are still green but developing slowly. Spring wheat was also badly injured by the drouth. It is green but retarded in development.

During the week all corn plats were cultivated; also, all the surface planted sorghums were cultivated. Brome grass was mown on the one and two year old sod plats. These plats yielded 1500 and 1800 pounds of hay per acre.

The annual grasshopper campaign has commenced. During the week two applications of poison were made on the project. This is necessary in order to save the corn crops from destruction.

Maximum temperature 100, minimum 50.

Sheridan:

The weather for the week has been mostly cool and cloudy. Crop conditions continue favorable, although weeds are also making rapid growth.

All of the fallow plats in the rotations have been plowed, and with the exception of those plowed this morning, all of them have been packed with the double disk. The ground was too wet to plow the first part of the week, but plows nicely now. The rains of last week put the roadways in shape so that we were enabled to get the weeds pretty well cleaned out of them during the first part of the week. All of the alleys in the rotations were cultivated for the second time. The alfalfa and brome in the forage crop work and the rotations were mowed yesterday. There was a heavy growth of both crops. Some winter grain has been rogued out of the plats and fields and more remains yet to be taken out.

The first seeding of oats in the field and the varieties began to head the first of the week. The winter wheat began to head at about the same time. The prelude wheat in the varieties is fully headed, and the Pelissier wheat seeded in the field has begun to head. All of the crops are heading unevenly.

Mr. J. M. Stephens visited the station Thursday.

Maximum temperature 82, minimum 43; precipitation .09 inches.

NOTE:- All field men are requested to forward immediately all unused transportation requests issued for use during the fiscal year 1920. Kindly forward these transportation requests at the earliest possible date.